

# City of Bainbridge Island

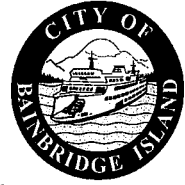
## BUILDING DIVISION

### ★ Accessory Dwelling Unit ★

PLANNING AND COMMUNITY DEVELOPMENT • 280 Madison Ave. N •

Bainbridge Island, WA 98110 • (206) 842-2552 • Fax: (206) 780-0955

Email: [pcd@ci.bainbridge-isl.wa.us](mailto:pcd@ci.bainbridge-isl.wa.us)



*This packet will aid you in understanding the procedures you will need to follow to apply for a Accessory Dwelling Unit permit. Noted below are City, State and County phone numbers that may be helpful.*

#### Each packet contains:

- Application (must complete #1-#13 & Owners Signature)
- Submittal Requirements (drawing requirements/checklist)
- Owner/applicant form (if anyone other than owner submitting)
- 2009 WSEC (**Energy Code form must be complete**)
- Building Square Footage Worksheet
- Revision Form for future changes
- Address Request Form (Required if ADU is a detached structure)
- Road approach form (please attach copy of site plan)
- Stormwater Drainage and Erosion Control Requirements (SWMM)

If you have:

#### 1. **Septic/Private Water**

A SFR permit application will **NOT BE** accepted without **preliminary or accepted** approval for septic and water availability from the Kitsap Health District **Kitsap Health District** 360.337.5285. We **NEED** proof that you've turned something into the Health District.

#### 2. **Sewer District #7/South Bainbridge Water District**

A SFR permit application will not be accepted without **preliminary or accepted** approval of Building Clearance for Sewered Properties from Kitsap Health District.

- a) **Requirements:** Sewer District #7 (206.459.2796) Sewer Availability Letter and
- b) Approval from South Bainbridge Water. Kitsap Health District/Applicant will call South Bainbridge Water District while at the Health District. (South Bainbridge Water 206.842.4299)

#### 3. **City of Bainbridge Island Sewer/Water**

A SFR permit application will **NOT BE** accepted without **preliminary or accepted** approval of Building Clearance for Sewered Properties from Kitsap Health District.

**Requirements:** A Sewer Availability Letter and a "binding" Water Availability Letter from the City of Bainbridge Island Public Works Department (206.842.2016).

Electrical permits are issued by **Washington State Department of Labor and Industries.**  
**360.415.4000.**

Further information may be required for your specific project. Any questions or concerns call  
206.842.2552.

**FEES ARE BASED ON SQUARE FOOTAGE OF THE RESIDENCE.**

The following Building Codes are now in effect:

- ⇒ **2009 Residential Code (IRC)**
- ⇒ **2009 International Mechanical Code (IMC)**
- ⇒ **2009 International Fire Code (IFC)**
- ⇒ **2009 Uniform Plumbing Code (UPC)**
- ⇒ **2009 Edition Washington State Energy Code (WSEC), WAC 51-11.**
- ⇒ (Effective January 1, 2009.)
- ⇒ The Washington State Ventilation and Indoor Air Quality Code has been repealed. Provisions formerly found in the VIAQ are now located in the IRC, the IMC and the IBC as appropriate.

### **Design Requirements**

IRC Table R301.2(1) is amended by filling in the blanks of the table as follows:

**Roof Snow Load:** 25 psf

**Wind Speed:** 85 mph (3-Second Gust)

**Wind Exposure:** B

**Exception:** Within 1,500 feet of the shoreline, the wind exposure category may be C or D in accordance with ASCE 7-05, Section 6.5.6.3, "Exposure Categories".

**Seismic Category:** D2

**Weathering:** Moderate

**Frost Line Depth:** 12 inches

**Termite:** Slight to Moderate

**Decay:** Slight to Moderate

**Winter Design Temp:** 27 degrees F

**Ice Shield Underlayment Required:** No

**Flood Hazards:** Per BIMC 15.16

**Air Freezing Index:** 113

**Mean Annual Temp:** 53 degrees F

### **Bainbridge Island Municipal Code Chapter 18.89**

#### **ACCESSORY DWELLING UNITS**

Sections:

18.89.010 Purpose.

18.89.020 Monitoring.

18.89.030 General requirements.

#### **18.89.010 Purpose.**

The purpose of this chapter is to provide a potential source of affordable housing units in single-family neighborhoods and to expedite the review and approval process for accessory dwelling units which conform to zoning and other provisions of the Bainbridge Island Municipal Code. (Ord. 95-07 § 25, 1995)

#### **18.89.020 Monitoring.**

The department will prepare a yearly report that details the number of accessory dwelling units created as a result of the provisions in this chapter. Additional information may be provided as necessary. (Ord. 95-07 § 25, 1995)

#### **18.89.030 General requirements.**

**A.** An accessory dwelling unit may be created within, or detached from, any single-family dwelling, whether existing or new, as a subordinate use, where permitted by this chapter.

**B.** Only one accessory dwelling unit may be created per parcel.

**C.** No variances shall be granted for an accessory dwelling unit.

**D.** Only the property owner, which shall include title holders and contract purchasers, may apply for an accessory dwelling unit.

**E.** One off-street parking space shall be provided in addition to off-street parking that is required for the primary dwelling pursuant to BIMC 18.81.030.

**F.** Accessory dwelling units shall be designed to maintain the appearance of the primary dwelling as a single-family dwelling containing 800 square feet of floor space or less. If a separate outside entrance is necessary for an accessory dwelling unit located within the primary dwelling, that entrance must be located either on the rear or side of the building.

**G.** Detached accessory dwelling units in the R-4.3, R-3.5, and R-2.9 zones shall have minimum 10-foot side setbacks for single-story and 15-foot side setbacks for two-story.

**H.** School impact fees and qualified exemptions from those fees as provided in Chapter 15.28 BIMC shall apply.

**I.** All other applicable standards including, but not limited to, lot coverage, setbacks, parking requirements, and health district requirements for water and sewage must be met. (Ord. 2005-20 § 1, 2005; Ord. 2004-02 § 1, 2004; Ord. 95-07 § 25, 1995)

**City of Bainbridge Island**  
**BUILDING DIVISION**  
**Submittal Requirements**



PLANNING AND COMMUNITY DEVELOPMENT • 280 Madison Ave. N •  
Bainbridge Island, WA 98110 • (206) 842-2552 • Fax: (206) 780-0955  
Email: [pcd@ci.bainbridge-isl.wa.us](mailto:pcd@ci.bainbridge-isl.wa.us)

---

**OUTLINE OF REQUIREMENTS**

Please use this document as to insure that all required information is included on your project plans.

**1. BUILDING PERMIT APPLICATION.**

**2. STORMWATER DRAINAGE PLAN.** Included in this Single Family Residence packet is an information packet for Stormwater Drainage to assist you in determining your stormwater drainage requirements.

**3. PLANS AND DRAWINGS (two copies)**

a. Format

**1) Sheet size (select one) 11 x 17", 18 x 24", 24 x 36"**

2) Title block - Locate the following on the right-hand margin of all sheets:

- a) Project Name and Address
- b) Drawing Number and Revision Column
- c) Project address
- d) Name, address and phone number of firm primarily responsible for drawing

3) Scale - All site drawings shall be of a consistent scale. Indicate scale with bar-symbol for plan reduction integrity. Unless site dictates a different scale, site drawings are preferred to be at a scale of 1" = 20' or 1" = 30'.

**Architectural plans and elevations shall be 1/4" = 1'**

4) North arrow - Include on all site and site-related drawings

**4. SITE PLAN (two copies attached to the construction drawings)**

- a. Property lines: Show the location and dimension
- b. Easements: Show the location for all existing and proposed utility, open space, drainage, native growth protection, and access easements and /or private roads; drawn to scale with accurate dimensions.
- c. Existing and proposed structures: Show location, dimension, and use of all existing and proposed buildings and structures on the site; show distances to property lines from eave line of structure.
- d. Land use code setbacks: Show front, side, rear, and street setbacks (if applicable). Designate which are the front, side and rear property lines.
- e. Walls and fences: Indicate location, length, and height.
- f. Streets and alleys: Show location, name and number of all streets and alleys adjacent to the site; show any off-site easements or private streets that provide access to a public road.
- g. Driveways and parking: Show location of on-site parking and driveways.
- h. Adjacent right-of-way: Locate and label the existing centerline, curb, and sidewalk. Distances to R.O.W. centerline must be to scale.

- i. Spot elevations and topography: Show surface elevation at each corner of the site and at the corner of structure base. Show existing and proposed contours at 2' intervals. Footings on or adjacent to slopes must comply with Uniform Building Code Section 2907 (d).
- j. Indicate all existing and proposed retaining structures and/or rockeries. Show maximum heights.
- k. Show building height calculations as defined in the land use code.
- l. Show where all roof, footing, driveway and other drains will be connected and/or disposed of. If infiltration system is proposed or required, show design and calculations for size.
- m. Show location of sump area a minimum of 200 square feet in size for washing out concrete trucks and directing wash water from exposed aggregate driveways.
- n. Ordinary high water mark: Must be shown if site is situated in a shoreline district.

## **5. FLOOR PLANS**

- a. Give square footage for each floor, including decks and garages.
- b. Floor layout: Show arrangements of walls; note proposed use and dimensions of all rooms; show stairs, hallways, restrooms, and decks.
- c. Windows and doors: Show location and dimensions of all windows, doors, and skylights and indicate opening direction and size.
- d. Fixture location: Show locations of hot water heater, heating unit, fans, smoke detectors, bathroom fixtures, mechanical equipment, etc.

## **6. ELEVATIONS:** Show elevations from north, south, east and west; provide spot elevations for each corner; provide finished floor level for each floor; show existing and proposed grades; show maximum building height; show maximum site slope.

## **7. ROOF:** Show roof overhangs and chimney clearances from roof; indicate pitch of roof.

## **8. SIDING:** Note exterior siding and roof covering.

## **9. OPENINGS:** Show doors, windows, skylights, sliders, or other types of opening vents in windows.

## **10. DECKS AND PORCHES:** Indicate height of guardrail and space of intermediate railing. Show rise/run of stairs with handrail grasp dimension and height above nosing or stair tread.

## **11. DOOR AND WINDOW SCHEDULE**

- a. Show door size, type, and closure devise for doors between the garage and dwelling and which way all doors open.
- b. Show window size and opening direction and size.
- c. Show bedroom egress window location, clear open size, sill height, and type of opening (i.e., slider, casement, etc.)

## **12. FOUNDATION**

- a. Foundation wall: Show foundation plan, shape, all dimensions; include maximum wall height(s) and all connections; Provide typical foundation sections at various points around the foundation system.
- b. Posts and footing: Show location and size of beams, posts, interior footings and their dimensions and connections.
- c. Crawl spaces: If crawl space is included, show location and size of all vents, access size, and location.
- d. Floor joists: Show size, spacing, direction, support connections, blocking, etc.
- e. Other Spaces: Show and label space within foundation (i.e., basement, garage, recreation room, etc.).
- f. Retaining Walls: Retaining structures in excess of five feet in height require engineered design with calculations.

**13. GEOTECHNICAL REPORT:** Required where unstable soil conditions are found or thought to exist.

**14. ENGINEERED FOUNDATION:** Stamped engineered plans with calculations are required for non-conventional foundation systems and/or sites with special soils conditions.

**15. ROOF, DECK AND FLOOR FRAMING PLANS**

- a. Roof, floor, and deck joists: Show joist size, spacing, direction, support, connections, blocking, etc.
- b. Bearing Walls: Show all bearing walls and/or post-beam support to foundation.
- c. Show all header sizes for door, window, and other openings.
- d. Show connections for all framing elements in structural details.

**16. STRUCTURAL CROSS SECTIONS AND DETAILS**

- a. Show a typical wall section with all materials labeled; indicate size and spacing of all members; include all dimensions; show insulation, sheathing, connections, siding, etc.
- b. Show typical roof section with all materials labeled; indicate size and spacing of all members; include all dimensions, venting, insulation, and connection.
- c. Show typical foundation and floor section with all materials labeled. Show size and spacing of all members. Show all dimensions, wall thickness, reinforcing bar size and spacing, reinforcing bar clearance. Show footing depth below grade, clearance between grade and sill plate, maximum wall height, connections, anchor bolt size and spacing. Show connection between floor diaphragm and foundation, slab thickness, slab or floor insulation. Show drainage for foundation retaining wall.
- d. Show all connection details, including post-beam, post footing, collar tie, etc. *Note: Roof collar tie details require engineered calculations to be submitted.*

**17. ARCHITECTURAL CROSS SECTIONS AND DETAILS**

- a. Show cross section of a typical wall; call out material types and thickness and insulation values. These call-outs may be done on the structural cross section.
- b. Show a cross section of a typical roof and floor; call-out material types and thickness and insulation values. These call-outs may be done on the structural cross section.

**18. STRUCTURAL NOTES**

- a. Specify all design load values, including dead, live, snow, wind, lateral retaining wall pressures, and soil bearing values.
- b. Specify minimum design concrete strength (2,500 psi minimum), concrete sack mix, and reinforcing bar grade.
- c. Specify the grade and species of all framing lumber.
- d. Specify the combination symbol (strength) of all GLU-LAM beams.
- e. Specify metal connectors, including joist hangers, clips, post caps, post bases, etc.

**19. ENERGY CODE**

- a. Show insulation R values in appropriate places on architectural sections.
- b. Provide a design summary on the plans; include R values of insulation, glazing class of the windows and skylights, percentage of total glazing to floor area, type of heating system and heating system efficiency rating.
- c. If a U value analysis is used for code compliance, provide a design summary on the plans; include U values of insulation, U values of all windows and skylights, wall assemblies, floor assemblies and roof assemblies. Specify the type of heating system and efficiency rating. Attach a set of the U-value analysis calculations to each plan set.
- d. Provide on the plans the ratio of window/skylight area to heated floor area.

20. **FIREPLACE SECTION.** Show a section of the fireplace, including hearth and hearth extension. Include dimensions, materials, clearance from combustibles, height above roof, reinforcing, seismic anchorage, and foundation details.
21. **STAIR SECTION.** Show a section of the stairs; include rise, run, handrail height and grasp dimensions, distance between any intermediate rails, fire blocking, minimum head-room, and landing size. Also specify a minimum one-hour fire protection or usable space under stairs.

**Regardless of whether the structure is exempt or nonexempt, Washington State-registered architects and engineers must stamp and sign all drawings prepared by them when filed with public authorities. RCW 10.43.070, RCW 18.96.150 and RCW 18.08.370 (2).**

*An application may require further information necessary to complete the review. You will be notified when further information is required.*

## OWNER/APPLICANT AGREEMENT

Number(s) \_\_\_\_\_

Site address and/or location \_\_\_\_\_

The undersigned hereby give consent and approval to an application for a \_\_\_\_\_

\_\_\_\_\_ of the land referenced above as initiated by \_\_\_\_\_

\_\_\_\_\_, acting for the undersigned.

Owner of record \_\_\_\_\_ date \_\_\_\_\_

Owner of record	date
-----------------	------

STATE OF WASHINGTON }  
                             } SS.

COUNTY OF KITSAP }

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared \_\_\_\_\_, known as the individual(s) described in and who executed the foregoing instrument, and acknowledged to me that they signed and sealed the said instrument, as their free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that \_\_\_he w\_\_\_\_ authorized to execute said instrument.

WITNESS MY HAND AND OFFICIAL SEAL, hereto affixed the day and year in this certificate above written. The            day of           , 20   .

Notary Public in and for the State of Washington,  
Residing at \_\_\_\_\_


Owner/Applicant Agreement		July 25, 2007
<p>City of Bainbridge Island Dept. of Planning and Community Development          280 Madison Avenue North • Bainbridge Island, WA • 98110-1812          Phone: (206) 842-2552 • Fax: (206) 780-0955 • Email: <a href="mailto:pcd@ci.bainbridge-island.wa.us">pcd@ci.bainbridge-island.wa.us</a>  <a href="http://www.ci.bainbridge-island.wa.us">www.ci.bainbridge-island.wa.us</a></p>		

This page intentionally left blank.

What's New  
Energy Code  
Energy Questions?  
IAQ Activities For Kids

Home  
About Us  
Information Centers  
Publications and Tools  
Energy Library  
Events & Trainings  
I'm Looking For...?

Building Efficiency  
Energy Code  
2006 Energy Code  
Previous Codes  
Community EE Pilot  
Industrial Efficiency  
Agricultural Efficiency  
Renewable Energy  
Public Facilities Support  
Research & Evaluation  
Computer Services

Search Energy Program 

## 2009 Washington State Energy Code

Our code experts provide support to those who use the residential sections of the Washington State Energy Code (WSEC). The 2009 code went into effect January 1, 2011 (visit the [State Building Code Council website](#) for updates).

Have questions about the residential code?  
Email [energycode@energy.wsu.edu](mailto:energycode@energy.wsu.edu) or call the WSEC Residential Code Hotline at (360) 956-2042. Other resources to help you are:

[Listserv](#)  
[Code Text](#)  
[Compliance Publications & Help](#)  
[Prescriptive Worksheets](#)  
[Scheduled Trainings](#)  
[List of Duct Testers](#)  
[Presentations & Videos](#)  
[Hot Topics](#)  
[FAQs](#)



We also offer [resources for the 2006 Washington State Energy Code](#). For non-residential code resources, contact the [Northwest Energy Efficiency Council](#).

### Listserv

[Sign up](#) to receive email updates about energy code changes and educational opportunities from the Energy Code listserv.

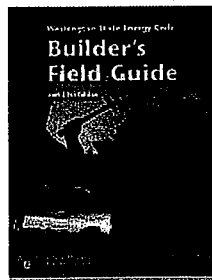
### Code Text

We provide support regarding the residential code only.








-  [2009 WSEC – Chapters 1 through 10 \(Single-Family Residential\)](#)
-  [2009 WSEC – Chapters 11 through 15 \(Multi-Family and Non Residential\)](#)

### Compliance Publications & Help

These resources pertain to the residential sections of the 2009 WSEC.



#### Builder's Field Guide

-  [Entire Guide](#)
-  [Cover, Intro, and Table of Contents](#)
-  [Chapter 1 Compliance](#)
-  [Chapter 2 Foundations](#)
-  [Chapter 3 Framing](#)
-  [Chapter 4 Insulation](#)
-  [Chapter 5 Air Leakage and Moisture Control](#)

- [Chapter 6 Plumbing](#)
- [Chapter 7 Heating and Cooling Systems](#)
- [Chapter 8 Fireplaces and Wood Stoves](#)
- [Chapter 9 WSEC Chapter 9 Credits](#)
- [Chapter 10 Default Heat Loss Coefficients](#)
- [Chapter 11 Lighting](#)
- [Supplement A Improving Forced Air Heating Systems](#)
- [Supplement B Taking Credit for Reduced Air Leakage in Residential Buildings](#)
- [Supplement C Thermal Performance of Common Insulation Materials](#)
- [Supplement D Insulated Concrete Form Systems](#)
- [Supplement E Permeance Value for Common Building Materials](#)
- [Supplement F Common Duct Insulation Materials](#)
- [Supplement G Inspecting Attic Insulation](#)

To view the 2006 version, see [2006 Edition of the Builder's Field Guide](#).

#### Other Publications

- [Duct Testing Standard \(RS-33\)](#)
- [Duct Testing Affidavit \(New Construction\)](#)
- [Duct Testing Affidavit \(Existing Construction\)](#)
- Jurisdictions please contact us for a modifiable copy of the Duct Testing Affidavit
- [Air Leakage Testing](#)
- [WSEC 2009 Certificate ¼ Sheet \(Avery 6878\)](#)
- [WSEC 2009 Certificate ½ sheet \(Avery 6573\)](#)
- [Duct and blower door test calculator](#)
- [Duct and blower door test calculator](#)
- [Benefits of Duct Sealing](#) – This brochure is set up for printing back-to-back and folding into a tri-fold. Printer settings will vary. Check instructions for your printer to determine correct settings for printing a two-sided document. Use the small mark on the inside to assist in folding the paper. Although designed in color, it can be printed in black and white.

### Prescriptive Worksheets

- Prescriptive Method (2009 WSEC Chapter 6). The prescriptive approach is the simplest method of WSEC code compliance. Meet all the minimum insulation levels required by one of the options, choose an additional credit and the project complies with the building envelope. The following Excel files provide a method for documenting compliance with the prescriptive standards. The files are for single-family and duplex construction as defined by the International Residential Code (IRC). Choose either [Prescriptive Climate Zone1](#) or [Prescriptive Climate Zone2](#) depending on location of the building.
- Prescriptive Worksheet Training The [Prescriptive Zone 1 Worksheet Training](#) is a narrated, step-by-step document that provides assistance when filling out the Prescriptive Zone 1 Worksheet. Please note, you must have [Adobe Reader 9.0](#) or later to view this file.
- Component Performance Approach (2009 WSEC). The [CPWorksheet](#) is designed to document the qualification of building designs by the component performance approach described in Chapter 5 of the WSEC.
- 2009 Additions Worksheet The additions worksheet can be used for additions less than 750 square feet that do not fully comply with WSEC requirements. Energy improvements made to the existing home can be used to compensate for energy deficiencies in the addition. A Component Performance worksheet must be filled out to determine the UA deficiency of the addition prior to completing the additions worksheet. [Download 2009 Additions Worksheet](#)



## Scheduled Trainings

The WSU Extension Energy Program offers training on the residential sections of the 2009 WSEC and on duct testing protocols. [Training details and schedule.](#)

## List of Duct Testers

We have compiled a [list of individuals](#) who have attended the one-day Duct Testing Training offered by the WSU Extension Energy Program and meet the minimum requirements to test ducts for the 2009 Washington State Energy Code.

Technicians who can verify that they have successfully completed duct testing training provided by the Northwest ENERGY STAR Program or from Performance Tested Comfort Systems (PTCS) may also be qualified to test ducts under the 2009 Washington State Energy Code (WSEC). For a database of PTCS technicians, refer to: <http://ptcsnw.com/FindContractor.aspx>. For a database of Northwest ENERGY STAR verifiers, refer to: <http://www.northwestenergystar.com/partners/home-builders?tid=169&=Apply>.

## Presentations and Videos

### Duct Sealing Video

"Duct Sealing for Comfort, Energy and Indoor Air Quality" (16:45 min.)

### Air Leakage In Homes: The Invisible Thief

Our air sealing video is divided into seven chapters so that you may choose to view all of the chapters or only those that are specific to your needs.

1. [Introduction](#)
2. [Why Air Seal?](#)
3. [Air Sealing For New Homes](#)
4. [Measuring Building Tightness](#)
5. [Air Sealing For Existing Homes](#)
6. [Combustion Safety](#)
7. [Final Thoughts](#)

## Washington State Energy Code Presentations

Although these trainings are frequently modified to meet jurisdictional needs and improve quality, here is what you will see or what you saw at a WSU Extension Energy Program residential energy code training.

- Presentation: [Duct Testing Training](#)
- Presentation: [Ductless Heat Pump Technology](#)
- Presentation: [2009 WSEC Overview](#)
- Presentation: [2009 WSEC Residential Training](#)

## "Hot Topic" Archives

- [ACEEE Ducts Inside.pdf](#)
- [Additions and Ducts.pdf](#)
- [ComparingTheMoisturePerformance Of Wood Framed Wall Systems.pdf](#)
- [Conditioned crawl spaces.pdf](#)
- [Economizers.pdf](#)
- [Efficient Water Heating.pdf](#)
- [Electric Heat Lock Out on Heat Pumps.pdf](#)
- [Energy Efficient Home Cooling.pdf](#)
- [Externally Applied Building Insulation.pdf](#)
- [Indoor Air Quality - Keeping Homes Dry.pdf](#)
- [Inspection Attic Insulation.pdf](#)
- [Principles of heat transfer.pdf](#)
- [Unvented attics.pdf](#)

- [WSEC Significant Res Code Changes for 2009.pdf](#)
- [Insuladd – Ceramic-based paint additive.pdf](#)
- [UltraCBF rFOIL – Foil faced bubble wrap.pdf](#)

## FAQs

Click on the question to show or hide the answer

### Support and Training

Q: I have a Washington State Energy Code (WSEC) question – who do I contact?

Q: I would like to attend an Energy Code class, how do I find out more information?

### Compliance Forms

Q: Where do I find WSU's compliance forms for the WSEC?

Q: Why don't I have tabs for the different worksheets or I only see the copyright page?

Q: What if I don't have a current version of Microsoft Office and am unable to view or download the forms?

Q: I need help filling out compliance forms, how do I get more information?

### Duct and Blower Door Testing

Q: Do you have to be certified to perform blower door testing?

Q: Testing of the envelope is now required for an addition if that addition is more than 750 sq. ft. Does one test the whole house when over that 750 limit? What if the addition is attached to a 50 year old leaky house? Would the owner then have the option of isolating the new portion from the old?

### Energy Code Requirements

Q: Where can I find a copy of a previous energy code? My house was built in 19XX, what were the energy code requirements then?

Q: I noticed that the description of an Intermediate Framed Wall in Chapter 10 of the Washington State Energy Code states, "Headers consist of double 2x material with R-10 insulation between the header and exterior sheathing." Does this mean that I can't use a solid 4x header and is the foam insulation required to be installed on the exterior side of the header?

Q: If a 6x header is required to be installed in a 2x6 wall for structural loading purposes, how do you insulate the header?

Q: How do I know what Climate Zone my project is located in?

Q: What is systems analysis and how do I use it to comply with the energy code? Do I need a Chapter 9 credit?

Q: I need R-24 insulation in exterior walls for Climate Zone 2. My exterior walls are 2x6 construction. What are economical and efficient options to achieve R-24 with 2x6 wall construction?

## Washington State Energy Code Prescriptive Approach - Worksheet Instructions

For the Washington State Energy Code, the prescriptive approach is the simplest method of code compliance. However, depending on the prescriptive option and exceptions used, documentation of compliance can be quite complex.

This set of forms has been developed to assist permit applicants documenting compliance with the Washington State Energy Code, (2009 edition). **These forms are provided as a compliance tool but it is the decision of each individual jurisdiction if completion of them is a submittal requirement. These forms contain embedded formulas and links. They are intended to be completed using Excel® software.**

The following forms provide much of the required documentation for plan review. The details noted here must also be shown on the drawings (WSEC 104.2).

This form is not a substitute for the energy code itself. To obtain a copy of the energy code, go to the following web address. <http://www.energy.wsu.edu/code>

### Which worksheets do I need to complete?

There are three worksheets included in this set of forms.

#### *General Compliance Worksheet:*

#### *Glazing Schedule Worksheet:*

#### *Heating Sizing Worksheet:*

#### **Heating Sizing Worksheet:**

The energy and residential code requires a heating and cooling sizing calculations for all projects. If you are using this set of worksheets to size the heating system, you will need to complete all the worksheets. **If a ACCA Manual J (or equivalent) heating and/or cooling system sizing calculation is submitted, the heating size worksheet does not need to be completed.** It is important to note that the codes also require a cooling system size calculation. This form will not provide the cooling calculation. It does not have the needed solar gains function. If a cooling system is included in the submission, perform a Manual J or equivalent calculation.

#### **Glazing Schedule Worksheet:**

There are three reasons to complete the Glazing Schedule. **If none apply to your project, you do not need to complete the Glazing Schedule worksheet.** A glazing schedule is required to meet the following conditions.

1. *The Prescriptive option includes a glazing to floor area limit (WSEC 602.7.2)*
2. *Not all the windows, skylights or doors comply with the maximum U-factor requirement. Qualification will be demonstrated using an area weighted window, skylight or door U-factor (WSEC 602.7.2)*
3. *As part of the heating and cooling system sizing calculation (IRC M1401.3 & WSEC 503.2.2)*

#### **General Compliance worksheet:**

The General Compliance worksheet documents the prescriptive option chosen to show compliance. It also provides a few checks on insulation compliance that need more detailed input. This worksheet is also used to document the reason for submission of the Glazing Worksheet.

If you are choosing a limited glazing area prescriptive option, completing the Glazing Schedule will be the first task.

#### **Completing the General Compliance Worksheet**

**This is a simple fill in form.**

Fill in project information on this worksheet. It will be copied to the other worksheets.

Note what options will be chosen to show compliance.

Note the glazing documentation included.

**If you are using an unlimited glazing path, all windows and doors meet the maximum U-factor requirements and a Manual J (or approved alternative) heating system size calculation is submitted, this is the only form that needs to be completed.**

#### **Completing the Glazing Schedule Worksheet:**

### Exterior Doors:

The exterior door section is for swinging doors only. Enter sliding doors in the vertical glazing section of the worksheet.

If a swinging door includes glazing, it may be entered in the vertical glazing schedule or in the exterior door schedule.

Obtain NFRC tested U-factors from the door manufacturer or use U-factors from WSEC Tables.

*Table 10-6A Default U-Factors for Vertical Glazing (use for doors with greater than 50% glazing.)*

*Table 10-6C Default U-factors for Doors (limited to doors with less than 50% glazing.)*

Area of windows, doors and skylights are measured using the rough opening area.

Glazing area in exterior doors is added to the total glazing area of the project as follows:

*If greater than 50%, 100% of the area is entered in the door glazing area.*

*If less than or equal to 50%, only the glazed area will be entered in the door glazing area.*

Exempt Door: One door, 24 feet or less is not included in the U-factor of glazing area calculations. You must calculate the door area to assure it is 24 square feet or less. This also enters the door heat loss into the heating system size calculation.

### Vertical and Horizontal Glazing:

Obtain NFRC tested U-factors from the glazing supplier. These will give the most accurate and likely the most favorable results. If you can't obtain this data, the tables in Chapter 10 of the WSEC must be used.

*For default U-factors for vertical glazing, refer to table 10-6A*

*If window manufacturer can legitimately be claimed as a "small business" (as defined in Chapter 2 of the WSEC), you may use table 10-6B for default U-factors. Note: the term "small business" refers to the glazing manufacturer, not the builder or building owner.*

*For default U-factors for overhead glazing, refer to table 10-6E*

*If doors are being entered into the vertical glazing table, refer to table 10-6C and 10-6D.*

### Garden Window Exception Schedule

The WSEC allows double glazed, unrated garden windows with a wood or vinyl frame to be exempt from the U-factor calculation under the following rules.

*The total area of this exemption is limited to 1 percent of the conditioned floor area up to a maximum*

*The area of the glazing must be multiplied by 3 and added to the total glazing area for the project.*

### Completing the Heating System Size Worksheet

This worksheet is used to calculate the design heat load of the structure. It also calculates the maximum heating system size required by code. This worksheet does not perform required cooling load calculations. Use Manual J or equivalent for cooling system size calculations.

Go to the Outdoor Design Temperature Worksheet Tab. Locate the outdoor design temperature for a location near the project site. You need to enter the design temperature on this worksheet.

Calculate and enter the volume of the interior space in the building (floor area x ceiling height).

Measure the dimensions of each exterior building assembly, wall, attic floor etc. Enter the area next to the R-value description that matches the construction. If a construction method is selected that is not represented here, select values from Chapter 10 of the WSEC and enter it in one of the blank spaces at the end of each components section.

Enter the correction factor for duct location. If the ducts are indoors, enter 1. If the ducts are in the crawl space, attic or garage, enter 1.15.

### Project Information

### Contact Information



The following forms provide much of the required documentation for plan review. The details noted here must also be shown on the drawings (WSEC 104.2).

Option	Glazing Area <sup>10</sup> : % of Floor	Glazing U-Factor		Door <sup>9</sup> U-Factor	Ceiling <sup>2</sup>	Vaulted Ceiling <sup>3</sup>	Wall <sup>12</sup> Above Grade	Wall· int <sup>4</sup> Below Grade	Wall· ext <sup>4</sup> Below Grade	Floor <sup>5</sup>	Slab <sup>6</sup> on Grade
		Vertical	Overhead <sup>11</sup>								
○ I	<b>13%</b>	0.34	0.50	0.20	R-49 or R-38 Adv.	R-38	R-21 Int. <sup>7</sup>	R-21 TB	R-10	R-30	R-10 2'
○ II	<b>25%</b>	0.32	0.50	0.20	R-49 or R-38 Adv.	R-38	R-21 Int. <sup>7</sup>	R-21 TB	R-10	R-30	R-10 2'
○ III	<b>Unlimited</b>	0.30	0.50	0.20	R-49 or R-38 Adv.	R-38	R-21 Int. <sup>7</sup>	R-21 TB	R-10	R-30	R-10 2'

Glazing Schedule Attached to Document \_\_\_\_\_

☐ Does not apply. **(SEE INSTRUCTIONS)** Using Prescriptive Option III. All glazing and doors meet maximum U-factor. Alternate heating size method submitted.

☐ Option I or II, Glazing to floor area limit (WSEC 602.7.2)

☐ Area weighted window, skylight or door U-factor (WSEC 602.7.2)

☐ As part of the heating system sizing calculation (IRC M1401.3 & WSEC 503.2.2)

☐ R-10 foam insulation, continuous with thermal break (WSEC 502.1.4.9)

Opt.	Opt. Description
------	------------------

Opt.	Opt. Description
1a	High Efficiency HVAC Equipment 1
1b	High Efficiency HVAC Equipment 2
1c	High Efficiency HVAC Equipment 3
2	High Efficiency HVAC Distribution System
3a	Efficient Building Envelope 1
3b	Efficient Building Envelope 2
3c	Super-Efficient Building Envelope 3
4a	Air Leakage Control and Efficient Ventilation
4b	Additional Air Leakage Control and Efficient Ventilation
5a	Efficient Water Heating
5b	High Efficiency Water Heating
6	Small Dwelling Unit
7	Large Dwelling Unit
8	Renewable Electric Energy

\*1200 kwh

**0.00**

0. Nominal R-values are for wood frame assemblies only or assemblies built in accordance with Section 601.1.
1. Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 15%, it shall comply with all of the requirements of the 25% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
2. Requirement applies to all ceilings except single rafter or joist vaulted ceilings complying with note 3. 'Adv' denotes Advanced Framed Ceiling.
3. Requirement applicable only to single rafter or joist vaulted ceilings.
4. Below grade walls shall be insulated either on the exterior to a minimum level of R-10 continuous, or on the interior as a framed wall. Exterior insulation installed on below grade walls shall be a water resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
5. Floors over crawl spaces or exposed to ambient air conditions.
6. Required slab perimeter insulation shall be a water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4. For slabs inside a foundation wall, the insulation shall be installed to provide a thermal break (TB) between the slab edge and the foundation. Monolithic slabs shall include insulation, installed outside the foundation wall, and shall extend downward from the top of the slab for a minimum distance of 24 inches or downward and then horizontally for a minimum combined distance of 24 inches. Monolithic slabs shall also include R-10 insulation under the non-load-bearing portions of the slab.
7. Int. denotes standard framing 16 inches on center with headers insulated with a minimum of R-10 insulation.
8. Reserved.
9. Doors, including all fire doors, shall be assigned default U-factors from Table 10-6C.
10. Where a maximum glazing area is listed, the total glazing area (combined vertical plus overhead) as a percent of gross conditioned floor area shall be less than or equal to that value. Overhead glazing with U-factor of  $U=0.35$  or less is not included in glazing area limitations.
11. Overhead glazing shall have U-factors determined in accordance with NFRC 100 or as specified in Section 502.1.5.
12. Log and solid timber walls with a minimum average thickness of 3.5" are exempt from this insulation requirement.

For more information:  
<http://www.ga.wa.gov/sbcc>  
<http://www.energy.wsu.edu/code/>

**TABLE 9-1**  
**ENERGY CREDITS (DEBITS)**

<b><u>OPTION</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>CREDIT(S)</u></b>
1a	<b><u>HIGH EFFICIENCY HVAC EQUIPMENT 1:</u></b> Gas, propane or oil-fired furnace or boiler with minimum AFUE of 92%,  <b>or</b> Air-source heat pump with minimum HSPF of 8.5.	<b>1</b>
1b	<b><u>HIGH EFFICIENCY HVAC EQUIPMENT 2:</u></b> Closed-loop ground source heat pump; with a minimum COP of 3.3.	<b>2</b>
1c	<b><u>HIGH EFFICIENCY HVAC EQUIPMENT 3:</u></b> <b><u>DUCTLESS SPLIT SYSTEM HEAT PUMPS, ZONAL CONTROL:</u></b> In home where the primary space heating system is zonal electric heating, a ductless heat pump system shall be installed and provide heating to at least one zone of the housing unit.	<b>1</b>
2	<b><u>HIGH EFFICIENCY HVAC DISTRIBUTION</u></b> All heating and cooling system components installed inside the conditioned space. All combustion equipment shall be direct vent or sealed combustion. Locating system components in conditioned crawl spaces is not permitted under this option. Electric resistance heat is not permitted under this option. Direct combustion heating equipment with AFUE less than 80% is not permitted under this option.	<b>1</b>
3a	<b><u>EFFICIENT BUILDING ENVELOPE 1:</u></b> Prescriptive compliance is based on Table 6-1, Option III with the following modifications: Window U = .28 floor R-38, slab on grade R-10 full, below grade slab R-10 full.  <b>or</b> Component performance compliance: Reduce the Target UA from Table 5-1 by 5%, as determined using EQUATION 1.	<b>0.5</b>
3b	<b><u>EFFICIENT BUILDING ENVELOPE 2:</u></b> Prescriptive compliance is based on Table 6-1, Option III with the following modifications: Window U = .25 and wall R-21 plus R-4 and R-38 floor, slab on grade R-10 full, below grade slab R-10 full, and R-21 plus R-5 below grade basement walls.  <b>or</b> Component performance compliance: Reduce the Target UA from Table 5.1 by 15%, as determined using EQUATION 1.	<b>1</b>
3c	<b><u>SUPER-EFFICIENT BUILDING ENVELOPE 3:</u></b>	

	<p>Prescriptive compliance is based on Table 6-1, Option III with the following modifications: Window U = .22 and wall R-21 plus R-12 and R-38 floor, slab on grade R-10 full, below grade slab R-10 full and R-21 plus R-12 below grade basement walls and R-49 advanced ceiling and vault.</p> <p>or</p> <p>Component performance compliance: Reduce the Target UA from Table 5.1 by 30%, as determined using EQUATION 1.</p>	2
4a	<p><b><u>AIR LEAKAGE CONTROL AND EFFICIENT</u></b></p> <p>Envelope leakage reduced to SLA of 0.00020 building envelope tightness shall be considered acceptable when tested air leakage is less than specific leakage area of 0.00020 when tested with a blower door at a pressure difference of 50 PA. Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation, and combustion appliances.</p> <p>and</p> <p>All whole house ventilation requirements as determined by Section M1508 of the Washington State Residential Code shall be met with a heat recovery ventilation system in accordance with Section M1508.7 of that Code.</p>	0.5
4b	<p><b><u>ADDITIONAL AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION:</u></b></p> <p>Envelope leakage reduced to SLA of 0.00015 building envelope tightness shall be considered acceptable when tested air leakage is less than specific leakage area of 0.00015 when tested with a blower door at a pressure difference of 50 PA. Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation, and combustion appliances.</p> <p>and</p> <p>All whole house ventilation requirements as determined by Section M1508 of the Washington State Residential Code shall be met with a heat recovery ventilation system in accordance with Section M1508.7 of that Code.</p>	1
5a	<p><b><u>EFFICIENT WATER HEATING:<sup>1</sup></u></b></p> <p>Water heating system shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.62.</p> <p>or</p> <p>Electric Water Heater with a minimum EF of .93.</p> <p>and for both cases</p> <p>All showerhead and kitchen sink faucets installed in the house shall meet be rated at 1.75 GPM or less. All other lavatory faucets shall be rated at 1.0 GPM or less.<sup>2</sup></p>	0.5
5b	<p><b><u>HIGH EFFICIENCY WATER HEATING:<sup>1</sup></u></b></p> <p>Water heating system shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.82.</p> <p>or</p>	

	<p>Solar water heating supplementing a minimum standard water heater. Solar water heating will provide a rated minimum savings of 85 therms or 2000 kWh based on the Solar Rating and Certification Corporation (SRCC) Annual Performance of OG-300 Certified Solar Water Heating Systems.</p> <p>or</p> <p>Electric heat pump water heater with a minimum EF of 2.0.</p>	1.5
6	<p><b><u>SMALL DWELLING UNIT 1:</u></b><sup>1</sup></p> <p>Dwelling units less than 1500 square feet in floor area with less than 300 square feet of window + door area. Additions to existing building that are less than 750 square feet of heated floor area.</p>	1
7	<p><b><u>LARGE DWELLING UNIT 1:</u></b><sup>1</sup></p> <p>Dwelling units exceeding 5000 square feet of floor area shall be assessed a deduction for purposes of complying with Section 901 of this Code.</p>	-1
8	<p><b><u>RENEWABLE ELECTRIC ENERGY:</u></b></p> <p>For each 1200 kWh of electrical generation provided annually by on-site wind or solar equipment a 0.5 credit shall be allowed, up to 3 credits. Generation shall be calculated as follows:</p> <p>For solar electric systems, the design shall be demonstrated to meet this requirement using the National Renewable Energy Laboratory calculator PVWATTS. Documentation noting solar access shall be included on the plans.</p> <p>For wind generation projects designs shall document annual power generation based on the following factors:</p> <p>The wind turbine power curve; average annual wind speed at the site; frequency distribution of the wind speed at the site and height of the tower.</p>	0.5

**Footnotes:**

**1. Interior Duct Placement:** Ducts included as Option 2 of Table 9-1 shall be placed wholly within the heated envelope of the housing unit. The placement shall be inspected and certified to receive the credits associated with this option.

**EXCEPTION:**

Ducts complying with this section may have up to 5% of the total linear feet of ducts located in the exterior cavities or buffer spaces of the dwelling. If this exception is used the ducts will be tested to the following standards:

Post-construction test: Leakage to outdoors shall be less than or equal to 1 CFM per 100 ft<sup>2</sup> of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.

**2. Plumbing Fixtures Flow Ratings.** Low flow plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following requirements:

**(a) Residential bathroom lavatory sink faucets:** Maximum flow rate - 3.8 L/min (1.0 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1.

**(b) Residential kitchen faucets:** Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1.

**(c) Residential showerheads:** Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1.

### Project Information


### Sum of UA for Heating System Sizing

### 602.7.2 Exception Ratio (not to exceed 1%)

[illegible]

**Sum of Glazing Area, Door Area, and UA (do not include exempt door)**

**Area Weighted  $U = UA/\text{Area}$**

**Sum of Area and UA for Heating system size only (include exempt door)**

[illegible]

### Sum of Area and UA

**Area Weighted  $U = UA/\text{Area}$**

### Overhead Glazing

Plan	Component	Glazing	
ID	Description	Ref.	U

Qt.	Width		Height	
	Feet	Inch	Feet	Inch

Area	UA

Sum of Area and UA  
Area Weighted U = UA/Area

### Double Glazed Garden Windows Section 602.7.2 Exception

Plan	Component
ID	Description

Qt.	Width		Height	
	Feet	Inch	Feet	Inch

Area	UA

Sum of Area  
Sum of Area X 3 (This total is automatically included in the glazing area total.)  
Glazing UA for Heating System Size Only = Area X 0.63

# Simple Heating System Size: Climate Zone 1

## Project Information


## Contact Information


Indoor Design Temperature 70  
 Outdoor Design Temperature

Design Temperature Difference ( $\Delta T$ )  
 $\Delta T = \text{Indoor} - \text{Outdoor Design Temp}$  70

Conditioned Floor Area   
 Conditioned Volume

## Glazing

Copy Sum of UA from Glazing Schedule

Attic	U-Factor	X	Area	=	UA
R-49	0.027	<input type="text"/>	<input type="text"/>		<input type="text"/>
R-38 Advanced	0.026	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>

Single Rafter or Joist Vaulted Ceilings	U-Factor	X	Area	=	UA
R-38 Vented	0.027	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>

Above Grade Walls	U-Factor	X	Area	=	UA
R-21	0.056	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>

Floors	U-Factor	X	Area	=	UA
R-30	0.029	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>

Below Grade Walls	U-Factor	X	Area	=	UA
2' Depth Walls	0.042	<input type="text"/>	<input type="text"/>		<input type="text"/>
3.5' Depth Walls	0.041	<input type="text"/>	<input type="text"/>		<input type="text"/>
7' Depth Walls	0.037	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>

Slab Below Grade	F-Factor	X	Length	=	UA
2' Depth	0.59	<input type="text"/>	<input type="text"/>		<input type="text"/>
3.5' Depth	0.64	<input type="text"/>	<input type="text"/>		<input type="text"/>
7' Depth	0.57	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>

Slab on Grade	F-Factor	X	Length	=	UA
R-10 2' perimeter	0.54	<input type="text"/>	<input type="text"/>		<input type="text"/>
R-10 Full - Heated	0.55	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>

Sum of UA

Envelope Heat Load  Btu / Hour

Sum of UA X  $\Delta T$

Air Leakage Heat Load  Btu / Hour

((Volume X 0.6) X  $\Delta T$ ) X .018)

Building Design Heat Load  Btu / Hour

Air Leakage + Envelope Heat Loss

Building and Duct Heat Load  Btu / Hour

If ducts are located in unconditioned space: Sum of Building Heat Loss X 1.15

If ducts are located in conditioned space: Sum of Building Heat Loss X 1

Maximum Heat Equipment Output  Btu / Hour

Building and Duct Heat Loss X 1.50



	Heating Design Temp		Heating Design Temp
Aberdeen 20 NNE	25.0	Medical Lake	4.0
Anacortes	24.0	Medina	24.0
Anatone	-4.0	Mercer Island	25.0
Appleton	11.0	Metaline Falls	-1.0
Auburn	25.0	Methow 2 W	1.0
Battleground	19.0	Mountlake Terrace	22.0
Bellevue	24.0	Mt. Spokane Summit	-2.0
Bellingham 2N	19.0	Mount Vernon 3 WNW	20.0
Benton City 2 NW	11.0	Moxee City 10 E	8.0
Bickleton	4.0	Mud Mtn. Dam	23.0
Blaine	17.0	Nespelem 2 S	-4.0
Bothell 2 N	17.0	Newhalem	19.0
Bremerton	29.0	Newport	-5.0
Brier	24.0	Normandy Park	24.0
Buckley 1 NE	26.0	Northport	2.0
Bumping Lake	-5.0	Oak Harbor	16.0
Burlington	19.0	Oakville	20.0
Camas	21.0	Odessa	7.0
Castle Rock	23.0	Olga 2 SE	24.0
Cedar Lake	20.0	Olympia, AP.	17.0
Centralia	21.0	Omak 2 NW	3.0
Central Park	27.0	Opportunity	8.0
Chehalis	21.0	Oroville	5.0
Chelan	10.0	Othello	9.0
Cheney	4.0	Packwood	16.0
Chesaw	-11.0	Palmer 3 SE	22.0
Chewalah 2 S	-9.0	Parkland	20.0
Chief Joseph Dam	6.0	Pasco	13.0
Clallam Bay 1 NNE	28.0	Plain	-3.0
Clarkston	10.0	Pleasant View	16.0
Clearbrook	19.0	Pt. Grenville	27.0
Clearwater	26.0	Pomeroy	3.0
Cle Elum	1.0	Port Angeles	28.0
Clyde Hill	24.0	Port Orchard	29.0
Colfax 1 NW	2.0	Pon Townsend	25.0
College Place	6.0	Priest Rapids Dam	14.0
Colville AP	-2.0	Prosser	12.0
Conconully	-7.0	Pullman Exp. Sta.	1.0
Concrete	19.0	Puyallup	19.0
Connell 4 NNW	6.0	Quilcene 2 SW	23.0
Cougar 5 E	25.0	Quillayute AP	23.0
Coulee Dam 1 SW	9.0	Quinault RS	25.0
Coupeville 1 S	21.0	Quincy 1 NE	4.0
Cushman Dam	22.0	Rainier, Longmire	15.0
Dallesport AP	14.0	Paradise RS	8.0
Darrington RS	13.0	Raymond	28.0
Davenport	5.0	Redmond	17.0
Dayton 1 WSW	5.0	Renton	24.0
Deer Park 2 E	-5.0	Republic	-9.0
Des Moines	25.0	Richland	11.0
Diablo Dam	15.0	Rimrock Tieton Dam	4.0
Dishman	9.0	Ritzville	6.0
East Bremerton	29.0	Rosalia	6.0
Edmonds	24.0	Ross Dam	14.0
Electron Headwks	16.0	St. John	15.0

Ellensburg AP	2.0	Sappho 8 E	23.0
Elma	24.0	Satus Pass	10.0
Eltopia 6 W	9.0	Seattle: Sea-Tac AP	24.0
Elwha RS	24.0	Sedro Woolley 1 E	19.0
Enumclaw	26.0	Selah	11.0
Ephrata AP	7.0	Sequim	23.0
Everett JC	23.0	Shelton	23.0
Everett Paine AFB	21.0	Shoultes	23.0
Fircrest	29.0	Skamania Fish Hatch.	24.0
Forks 1 E	23.0	Smyrna	8.0
Fort Lewis	24.0	Snohomish	21.0
Fruitvale	1.1	Snoqualmie Falls	22.0
Glacier RS	13.0	Snoqualmie Pass	6.0
Glenoma (Kosmos)	18.0	South Broadway	11.0
Goldendale	7.0	So. Olympic Tree Farm	24.0
Grandview	12.0	Spanaway	20.0
Grapeview	30.0	Spokane AP	4.0
Grayland 2 S	28.0	Spokane CO	10.0
Grays River Hatchery	24.0	Spokane Fairchild AFB	4.0
Greenwater	1.4	Sprague	4.0
Grotto	21.0	Stampede Pass	7.0
Harrington 2 S	3.0	Startup 1 E	20.0
Hartline	7.0	Stehekin 3 NW	12.0
Hatton 8 E	1.0	Steilacoom	21.0
Holden Village	4.0	Stevens Pass	6.0
Hoquiam AP	26.0	Stockdill Ranch	-14.0
Ice Harbor Dam	17.0	Sumner	19.0
Inchelium 2 NW	0.0	Sunnyside	12.0
Issaquah	23.0	Tacoma McChord	21.0
John Day Dam	19.0	Tacoma CO	29.0
Kelso AP	24.0	Tatoosh Island	31.0
Kennewick 10 SW	13.0	Thompson Place	20.0
Kent	21.0	Tietort Intake	6.0
Kid Valley	20.0	Toledo AP	17.0
Kirkland	17.0	Toppenish	11.0
Lacey	17.0	Trinidad 2 SSE	13.0
Lacrosse 3 ESE	-3.0	Tukwila	24.0
La Grande	23.0	Tumwater	17.0
Lake Cle Elum	-4.0	University Place	29.0
Lake Forest Park	20.0	Upper Baker Dam	14.0
Lake Kachess	-2.0	Vancouver	22.0
Lake Keechelus	0.0	Vashon Island	28.0
Lakewood Center	23.0	Walla Walla AP	6.0
Landsburg	18.0	Walla Walla CO	13.0
Larson AFB	6.0	Wapato	10.0
Laurier	-8.0	Washougal 8 ENE	21.0
Leavenworth	-3.0	Waterville	1.0
Lemanasky Lake	-7.0	Wawawai 2 NW	14.0
Lind 3 NE	6.0	Wellpinit	1.0
Linwood	10.0	Wenatchee AP	13.0
Little Goose Dam	22.0	Wenatchee CO	10.0
Long Beach 3 NNE	25.0	West Clarkston	10.0
Longview	24.0	Whidbey Island	11.0
Lower Granite Dam	14.0	White River RS	12.0
Lower Monument Dam	18.0	White Swan RS	8.0
Lynden	18.0	Whitman Mission	11.0
Lynnwood	24.0	Wilbur	4.0
Maloft	4.0	Willapa Harbor	26.0
Marietta 3 NNW	18.0	Wilson Creek	3.0
Marysville	23.0	Wind River	15.0
McMillin Res.	21.0	Winthrop 1 WSW	-12.0
McNary Dam	11.0	Yakima AP	11.0

**City of Bainbridge Island  
BUILDING DIVISION**



**Building Square Footage Worksheet**

PLANNING AND COMMUNITY DEVELOPMENT • 280 Madison Ave. N •

Bainbridge Island, WA 98110 • (206) 842-2552 • Fax: (206)780-0955

Email: [pcd@ci.bainbridge-isl.wa.us](mailto:pcd@ci.bainbridge-isl.wa.us)

Owner: \_\_\_\_\_

Permit: \_\_\_\_\_

Site Address: \_\_\_\_\_

Date: \_\_\_\_\_

1 <sup>st</sup> Floor		SF
2 <sup>nd</sup> Floor		SF
Basement		SF
Garage/Carport		SF
Above Garage		SF
Decks		SF
Other		SF
Other		SF
Totals		SF

**THE DETERMINATION OF BUILDING PERMIT FEES FOR PROJECTS REVIEWED  
BY THE CITY OF BAINBRIDGE ISLAND BUILDING DIVISION WILL BE BASED  
ON VALUATION COMPUTED FROM THESE FIGURES.**

*This page intentionally left blank.*



# REVISION FORM

CITY OF BAINBRIDGE ISLAND

Planning And Community Development • 280 Madison Ave. N • Bainbridge Island, WA 98110

• (206) 842-2552 • Fax: (206) 780-0955

Email: [pcd@ci.bainbridge-isl.wa.us](mailto:pcd@ci.bainbridge-isl.wa.us)

Any change from the last submitted or approved plans will constitute the need for approval from the Building Official, unless otherwise noted (2009 IRC R106.4). Use this form for making a revision to an approved drawing or submitted document in review. Check the appropriate department that requested the revision and write a detailed description of the revision. Attach a copy of the Inspector's Correction Notice, if applicable. Revisions that are not clear will be returned to you for clarification. Additional hourly review fees may apply.

**Applicant/Contact:** \_\_\_\_\_ **BP#** \_\_\_\_\_

**Contact Phone:** \_\_\_\_\_ **Email Address:** \_\_\_\_\_

Check appropriate box as to who initiated this **REVISION**:

☐ **OWNER**      ☐ **INSPECTOR**      ☐ **PLAN REVIEWER**

Please check all that apply: We need Two copies of All submittals.

☐ **NON-STRUCTURAL REVISIONS.**      ☐ **BUILDING HEIGHT REVISION**  
☐ **STRUCTURAL REVISION.**      ☐ **SITE PLAN REVISION**

Detailed Description of the Revision/Correction:

(List each revision or attach a list of responses, highlight revised sections of plans and or details.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Internal Use Only:

<input type="checkbox"/> <b>Building Division</b>	<b>Approved By:</b> _____ <b>Date:</b> _____
<input type="checkbox"/> <b>Planning Division</b>	<b>Approved By:</b> _____ <b>Date:</b> _____
<input type="checkbox"/> <b>Drainage Division</b>	<b>Approved By:</b> _____ <b>Date:</b> _____
<input type="checkbox"/> <b>Other</b> _____	<b>Approved By:</b> _____ <b>Date:</b> _____

Fees Due \$

Minimum Fee \$66.27

Comments: \_\_\_\_\_

**Intake Initials:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tidemark Entry by:** \_\_\_\_\_

# **ATTENTION**

## ***Permit Holders!***

Please provide our office with as much lead-time as possible to avoid delays in your project.



**CITY OF BAINBRIDGE ISLAND/  
BAINBRIDGE ISLAND FIRE DEPARTMENT**



**Address Request Form**

**PLANNING AND COMMUNITY DEVELOPMENT ●**  
**280 Madison Ave. N ● Bainbridge Island, WA 98110 ●**  
**(206) 842-2552 ● Fax: (206) 780-0955**  
**Email: [pcd@ci.bainbridge-isl.wa.us](mailto:pcd@ci.bainbridge-isl.wa.us)**

The City coordinates addresses and street names with the Bainbridge Island Fire District, CENCOM(911), the post office, and the Police Department so that emergency vehicles and personnel can quickly and accurately find the location to which they've been called and so that mail may be delivered accurately.

**Please return this form to the Department of Planning & Community Development.**

Reason for request:

☐ EXISTING ☐ NEW ☐ CORRECTION ☐ CHANGE ☐ ADDITIONAL

NAME: \_\_\_\_\_ PHONE: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

Tax Lot Number (Assessor's Account #): \_\_\_\_\_  
(For parcel being assigned address)

Name of Street being accessed: \_\_\_\_\_  
(i.e. Madison Ave N.)

Use of Address: \_\_\_\_\_ Building Permit #: BLD \_\_\_\_\_

☐ Single Family Residence ☐ Multi-Family ☐ Accessory Dwelling Unit ☐ Commercial Property

Please attach a site plan/diagram of your property, including all road names in the area and addresses of your neighbor's. Please include driveway and access from the street. If addressing multi-family units or commercial tenant space, please provide a diagram of the buildings and units.

Your **NEW ADDRESS** is: \_\_\_\_\_

Residences are required by law to display their new number in numerals not less than three inches in height and five inches in height for commercial on a contrasting background on the front of their building, unless it is not visible from the road way, in which case they shall be displayed at the main entrance to the property. If any information changes or is incomplete, your assigned address may be subject to change.

**Internal Use Only:**

<input type="checkbox"/> Sent to BIFD	By: _____	Date: _____
<input type="checkbox"/> Address Assigned	By: _____	Date: _____
<input type="checkbox"/> KSAM Updated	By: _____	Date: _____
<input type="checkbox"/> Tidemark Updated	By: _____	Date: _____

This page intentionally left blank.



# Residential Building Permit Submittal Checklist

Applicant: \_\_\_\_\_

Permit # \_\_\_\_\_

**BUILDING DIVISION**

Date: \_\_\_\_\_

CITY OF BAINBRIDGE ISLAND - BUILDING				YES	NO	N/A
1.	Owner/Applicant Agreement Required?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Directions to job site & Vicinity Map			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	FLOOD PLAIN (Make Tidemark Entry if applicable)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Energy Code Checklist complete (WHF location) & matches plans (Glazing %)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Two complete plan sets:					
	➤ Plans legible, dimensioned and to scale			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	➤ Smoke Detectors & Egress Windows Called Out			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	➤ Architect stamped and signed			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	➤ Engineer plans/calcs stamped & signed			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	➤ Lateral analysis/braced wall panels identified			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	➤ Site Plan			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Generator?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• LP Tank?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Heat Pump?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	➤ Foundation Plan			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	➤ Floor Plan Identify Rooms/WHF Location			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	➤ Heating System Location/Type	<u>ELECTRIC</u>	<u>PROPANE</u>	<u>OIL</u>		
	➤ Furnace	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	➤ Heat Pump ( & Furnace)	<input type="checkbox"/>				
	➤ Boiler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	➤ Radiant Heat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	➤ Electric Baseboard/Radiant	<input type="checkbox"/>				
	➤ Water Heater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	➤ Auxiliary Heat/Furnace? Location?				<input type="checkbox"/>	<input type="checkbox"/>
	➤ PROPANE					
	• Tank Size				<input type="checkbox"/>	<input type="checkbox"/>
	• Appliances & Location				<input type="checkbox"/>	<input type="checkbox"/>
	➤ Fireplaces – Number/Type/Location				<input type="checkbox"/>	<input type="checkbox"/>
	➤ Cross-Section				<input type="checkbox"/>	<input type="checkbox"/>
	➤ Elevations				<input type="checkbox"/>	<input type="checkbox"/>
	➤ Roof Framing				<input type="checkbox"/>	<input type="checkbox"/>
	➤ Blank Inspection Card in File				<input type="checkbox"/>	<input type="checkbox"/>
6.	Address Form (Check Tidemark, COBI GIS & Kitsap County GIS, if they don't match fill out form)				<input type="checkbox"/>	<input type="checkbox"/>
7.	Stamp in Plans (Date & Large Building Div Stamps)				<input type="checkbox"/>	<input type="checkbox"/>
8.	Plan Review Checklist				<input type="checkbox"/>	<input type="checkbox"/>
9.	Attach Revision Notification & label, Shear Wall/BWP/Hold Down label				<input type="checkbox"/>	<input type="checkbox"/>

PLANNING		YE		
		S	NO	N/A
1.	Check Planning Intake Checklist for Geotech Report Notes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	3 <sup>rd</sup> Party Geotech Report (Red Form, make Tidemark entry and route to Josh)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PUBLIC WORKS		YE		
		S	NO	N/A
1.	Drainage Plan (Can be shown on Site Plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Surface & Storm Water Management Checklist (SSWM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Road Approach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Water Availability Letter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Connection to Existing System	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Geotech Report (Steps 1 and/or 2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

KITSAP COUNTY HEALTH		YE		
		S	NO	N/A
1.	Building Site Application (BSA) Check expiration date. BP must be issued prior to expiring.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Building Clearance (On-Site Sewage or Sewered Properties)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Building Clearance Exemption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Sewer District #7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Sewer/Water Letter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Miscellaneous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FIRE DEPARTMENT		YE		
		S	NO	N/A
1.	Is this permit a: SFR?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Manufactured Home (Mobile)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ADU (Accessory Dwelling Unit)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Sent to Fire a Copy of BP Application with			
	• Planning permit number in the "Special Conditions" section	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Residential Fire Sprinkler System? ( sq. ft. Home)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Planning Review Permit Number	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

After creating the case, print a copy of the Tidemark "Case Description" by clicking on the word "File" then click on "Print". Punch 2 holes in it and file it where the Inspection Card goes

☐ ☐ ☐

Notes:

---



---



---



---

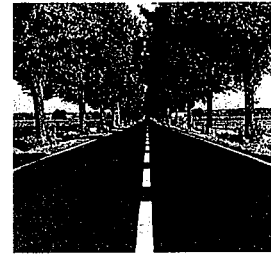
Received By: \_\_\_\_\_

City of Bainbridge Island - Development Division  
**Road Approach Permit Application**

*For City Use Only:*  
*Date Stamp*

*For City Use Only:*

*Project Number:* \_\_\_\_\_



Applicant's Name: \_\_\_\_\_

Applicant's Telephone #: \_\_\_\_\_

Applicant's Email Address: \_\_\_\_\_

Project street address or location: \_\_\_\_\_

Road to be approached: \_\_\_\_\_

Proposed or Existing Land Use:

- ☐ Residential, number of residences served \_\_\_\_\_
- ☐ Industrial
- ☐ Commercial

Road approach is (circle one): **Existing** / **New** / **Reconfigured Existing**

Roadway Classification (may be found at <http://www.bainbridgewa.gov:8080/PublicGIS/>):

- |  |   |                                    |
|--|---|------------------------------------|
| <input type="checkbox"/> Primary Arterial  | <input type="checkbox"/> Secondary Arterial   | <input type="checkbox"/> Collector |
| <input type="checkbox"/> Residential Urban | <input type="checkbox"/> Residential Suburban | <input type="checkbox"/> Private   |

*For City Use Only - Comments and Permit Conditions:*

---

---

---

---

Approved by \_\_\_\_\_ Date \_\_\_\_\_

*\*Permits are valid for 1 year following the date of approval\**

<p>City of Bainbridge Island - Development Division</p> <p><b>Road Approach Permit Application</b></p>
--

- All new and reconfigured road approaches to public and private roads shall be constructed in accordance with the most current edition of the City of Bainbridge Island Design and Construction Standards and Specifications: ([http://www.ci.bainbridge-isl.wa.us/engineering\\_standards.aspx](http://www.ci.bainbridge-isl.wa.us/engineering_standards.aspx)), and the most current edition of the WSDOT/APWA *Standard Plans and Specifications for Road, Bridge and Municipal Construction*.
- Road approaches shall meet the following **standards and drawings** as outlined in the City of Bainbridge Island Design and Construction Standards and Specifications:
  - Section 6 - Site Access
  - Section 7 - Roads and Streets
  - Section 8 - Road Elements, Features
- A construction plan prepared in accordance with the standards outlined in the above-mentioned documents must be provided to the City for review and approval prior to permit issuance. Plans should include: existing conditions; geometry of driveway approach; material specifications; culvert locations; and adjacent access points or streets (if necessary).
- The City's development inspector must review the completed construction prior to issuance of a final approval. Road approach permits associated with a building permit will be assigned a review item on the project inspection card, otherwise applicants should call 206-780-3783 to schedule an inspection.

**Residential Road Approach Tips:**

- Driveways must be a minimum of 10'-wide
- Driveways adjacent to paved roads must be paved within the public right-of-way in accordance with City standards for the roadway classification
- Driveways adjacent to gravel roads must be graveled within the public right-of-way to meet the gravel base in accordance with the standards for the roadway classification
- Driveways across existing or proposed sidewalks must be constructed with a concrete apron in accordance with City standards
- Culverts must be a minimum of 12-inches in diameter.

City of Bainbridge Island  
Surface & Stormwater Management (SSWM) Plan Worksheet



To be completed by the applicant and submitted with construction permit applications that require a Surface & Stormwater Management Plan (SSWMP) or Storm Water Pollution Prevention Plan (SWPPP). Submit this form at the time of initial construction permit application. Two copies are required.

Related Application or Building Permit Number:

Date: \_\_\_\_\_ Applicant's telephone #: \_\_\_\_\_

Applicant's name: \_\_\_\_\_

Applicant Signature: \_\_\_\_\_

Site address or location: \_\_\_\_\_

Project Name: \_\_\_\_\_

**Background:** This surface & storm water management plan is designed to address storm runoff from newly created impervious surfaces or newly disturbed clearings on your parcel. Impervious surface means a hard surface area which either prevents or retards the entry of water into the soil mantle (as under natural conditions prior to development), and/or a hard surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots, storage areas, sport courts, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of storm water.

**Disturbed land** includes any land where vegetation is cleared to make way for your project, including all areas graded for cut & fill, cleared for construction, cleared for landscaping, pastures, septic system etc. Construction site clearing, grading or excavating which results in disturbance of 1 acre or more is required by Washington State Department of Ecology to obtain an NPDES Construction Stormwater General Permit for stormwater discharges associated with construction activity. The permit can be found at the following web site. [http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html#permit\\_factsheet](http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html#permit_factsheet)

**References:**

- Bainbridge Island Municipal Code, Chapter 15.20, Surface and Storm Water Management
- Bainbridge Island Municipal Code, Chapter 15.21, Storm Water Facilities Maintenance Program
- Washington State Department of Ecology Storm Water Management Manual for the Puget Sound Basin

IS THIS PARCEL WATERFRONT PROPERTY? ☐ Yes ☐ No

IS A GEOTECHNICAL REPORT REQUIRED FOR BUILDING ON THIS PROPERTY?

☐ Yes ☐ No

If "Yes", then prior to submission of this plan or building permit, your geotechnical engineer must give concurrence for the drainage plan or SWPPP confirming that your proposed plan handles stormwater in a manner that doesn't reduce the geotechnical stability of the property.

DOES AN ENGINEERED COMMUNITY/REGIONAL STORM WATER SYSTEM EXIST TO SERVE YOUR PARCEL? Yes ☐ No ☐ Don't Know ☐

If yes, plat name and lot number: \_\_\_\_\_

# City of Bainbridge Island

## Surface & Stormwater Management (SSWM) Plan Worksheet



### PROPOSED IMPERVIOUS SURFACES:

Fill in all applicable blanks below to list the square footage of all impervious areas proposed on your parcel. For buildings, measure out to the edge of the eaves. Don't include decks with slots.

Houses: \_\_\_\_\_ ft<sup>2</sup>

Detached Garage: \_\_\_\_\_ ft<sup>2</sup>

Outbuildings: \_\_\_\_\_ ft<sup>2</sup>

Driveways: \_\_\_\_\_ ft<sup>2</sup>

Sidewalks: \_\_\_\_\_ ft<sup>2</sup>

Patios: \_\_\_\_\_ ft<sup>2</sup>

Other: \_\_\_\_\_ ft<sup>2</sup>

**Grand Total:**

\_\_\_\_\_ ft<sup>2</sup>

If your 'Grand Total' is less than 800 square feet, no plan is required.

If your 'Grand Total' is greater than 800 square feet, but less than 5,000 square feet, a drainage plan is required, and you may utilize this prescriptive worksheet.

If your 'Grand Total' is greater than 5,000 square feet, or if your new disturbed land is greater than 43,560 square feet, an engineered drainage plan is required and must be prepared by a professional Engineer, licensed by the State of Washington. (With an exception for waterfront properties discharging directly to the shoreline.)

### Infiltration Type and Size:

Find your grand total in the chart at the right, choose your method, find your size and fill in preferred method below.

- ☐ Less Than 800 sq.ft. No Plan Required
- ☐ Waterfront Release: See Appendix
- ☐ Infiltration Bed: \_\_\_\_\_ sq.ft.
- ☐ Standard Trench: \_\_\_\_\_ lf.
- ☐ Wide Trench: \_\_\_\_\_ lf.
- ☐ 4' Chambers: \_\_\_\_\_ chambers

### Infiltration Table

24-hour, 10-year return rainfall = 3.2 inches

**Grand  
Total**

### INFILTRATION METHOD:

<i>Impervious AREA in Square Feet</i>	<i>INFILTRATION BED in square feet</i>	<i>STANDARD (2')TRENCH in lineal feet</i>	<i>WIDE (3') TRENCH in lineal feet</i>	<i>4 Foot GRAVELLESS CHAMBERS Number of chambers</i>
0 - 100	29	8	6	1
101 - 200	58	15	12	3
201 - 300	87	22	18	3
301 - 400	116	29	24	4
401 - 500	144	36	29	5
501 - 600	173	44	35	6
601 - 700	202	51	41	7
701 - 800	231	58	47	9
801 - 900	260	65	52	10
901 - 1000	288	72	58	11
1001 - 1100	317	80	64	12
1101 - 1200	346	87	70	13
1201 - 1300	375	94	75	14
1301 - 1400	404	101	81	15
1401 - 1500	432	108	87	16
1501 - 1600	461	116	93	17
1601 - 1700	490	123	98	18
1701 - 1800	519	130	104	19
1801 - 1900	548	137	110	21
1901 - 2000	576	144	116	22
2001 - 2100	605	152	121	23
2101 - 2200	634	159	127	24
2201 - 2300	663	166	133	25
2301 - 2400	692	173	139	26
2401 - 2500	720	180	144	27
2501 - 2600	749	188	150	28
2601 - 2700	778	195	156	30
2701 - 2800	807	202	162	30
2801 - 2900	836	209	168	31
2901 - 3000	864	216	173	32
3001 - 3100	893	224	179	34
3101 - 3200	922	231	185	35
3201 - 3300	951	238	191	36
3301 - 3400	980	245	196	37
3401 - 3500	1008	252	202	38
3501 - 3600	1037	260	208	39
3601 - 3700	1066	267	214	40
3701 - 3800	1095	274	219	41
3801 - 3900	1124	281	225	42
3901 - 4000	1152	288	231	43
4001 - 4100	1181	296	237	44
4101 - 4200	1210	303	242	45
4201 - 4300	1239	310	248	46
4301 - 4400	1268	317	254	47
4401 - 4500	1296	324	260	49
4501 - 4600	1325	332	265	50
4601 - 4700	1354	339	271	51
4701 - 4800	1383	346	277	52
4801 - 4900	1412	353	283	53
4901 - 5000	1440	360	288	54

> 5000 Must have an engineered drainage plan.

City of Bainbridge Island  
Surface & Stormwater Management (SSWM) Plan Worksheet



**Descriptions:**

**Drain rock:** ..... $\frac{3}{4}$ " to  $1\frac{1}{2}$ " round washed rock.

**Infiltration Bed:** ....large, flat, level, usually rectangular, pit with a minimum 1 ft. deep bed of drain rock, with a large loop of perforated pipe in upper  $\frac{1}{3}$  of rock, covered with filter fabric & 6" or more compact backfill. No infiltration credit is given for pit sidewalls.

**Standard trench:** ...uses 2-ft.-wide backhoe bucket; with trench deep enough for 1 ft. of drain rock under & 6" above the perforated pipe [the length of the trench]; entire trench & contents wrapped with filter fabric; with 6" or more compact backfill above. With 2 ft. across bottom of trench & 1 ft. sidewall credit up each side, for every lineal foot of trench you achieve 4 ft<sup>2</sup> of infiltration area.

**Wide trench:** .....same as standard trench but uses 3-ft.-wide excavator bucket. With 3 ft. across bottom of trench & 1 ft. sidewall credit up each side, for every lineal foot of trench you achieve 5 ft<sup>2</sup> of infiltration area.

**Gravelless Chambers:** Often called infiltrators. These molded 'half-pipe' black or yellow plastic chambers are completely open on the bottom and have louvers on the sides.

City of Bainbridge Island  
**Surface & Stormwater Management (SSWM) Plan Worksheet**



## Appendix

### Waterfront Release

**Applicability:**

As long as provisions are made for preserving water quality, your release of stormwater to Puget Sound should have no significant impact on the shoreline.

You may collect all stormwater and route it to the beach area, with a few restrictions:

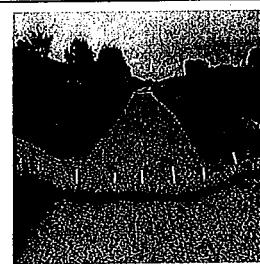
- The outfall must be above the ordinary high water mark per BIMC 16.12 and not release an erosive concentrated flow to the beach. This is normally achieved by either placing a quarry spall energy dispersion pad at the outfall, releasing into a rock pocket behind a bulkhead, or releasing behind or into a natural structure that resists erosion and assists dispersion, such as a root ball mass.
- All proposed releases to the shoreline shall be coordinated with the Washington State Department of Fish & Wildlife. Generally, if the pipe releasing stormwater to the beach area is larger than 8" diameter a shoreline permit is required. The Planning & Community Development (PCD) Department can assist you with shoreline permits.
- If any runoff is collected from a driving surface (all driveway and parking areas), it must be treated to remove petroleum products before it is released to the environment. Contact the City's Engineering Division for more information.
- If the discharge pipe traverses a steep bluff on its way to the beach, it must be a continuous pipe that is securely anchored to the surface of the bluff.

City of Bainbridge Island - Development Division  
**Stormwater Pollution Prevention Plan (SWPPP) Checklist:**  
**Projects Between 800 & 5,000 SF**

*For City Use Only:*  
*Date Stamp*

*For City Use Only:*

*Project Number:* \_\_\_\_\_



**Part 1**

Applicant's Name: \_\_\_\_\_

Applicant's Telephone #: \_\_\_\_\_

Applicant's Email Address: \_\_\_\_\_

Project street address or location: \_\_\_\_\_

**Project Description**

Total project area (SF or acres): \_\_\_\_\_

Total proposed disturbed area: \_\_\_\_\_

Total proposed (new + replaced) impervious area: \_\_\_\_\_

Total volume of proposed cut and fill (CY): \_\_\_\_\_

**Existing Site Conditions**

Describe the existing topography: \_\_\_\_\_

\_\_\_\_\_

Describe the existing vegetation: \_\_\_\_\_

\_\_\_\_\_

Describe any existing drainage features, including problematic areas (wet areas, streams, steep slopes): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Stormwater Pollution Prevention Plan (SWPPP) Checklist:  
Projects Between 800 & 5,000 SF**

Describe any adjacent areas that might be affected by site disturbance:

- ☐ Steams      ☐ Wetlands      ☐ Roads      ☐ Pond
- ☐ Residential Areas      ☐ Shoreline      ☐ Other

---

---

---

**Part 2**

Every SWPPP must address the 12 required elements from the Washington State Department of Ecology Stormwater Management Manual for Western Washington.

Check the suggested BMP you will use to satisfy the required element and identify location on the SWPPP plan. If an element does not apply to your proposal, provide a written justification identifying the reason an element is not applicable to the proposal.

1. **Mark the Area Disturbed by Construction Activity.** Describe the total disturbed area (grading, building pad, driveway, septic installation, etc.) and reference how you will clearly mark the area of disturbance.

- ☐ BMP C101 - Preserving Natural Vegetation  
☐ BMP C102 - Buffer Zones  
☐ BMP C103 - High Visibility Plastic or Metal Fence  
☐ BMP C104 - Stake and Wire Fence

---

---

---

2. **Establish Construct Access.** Describe construction access.

- ☐ BMP C105 - Stabilized Construction Entrance  
☐ BMP C106 - Wheel Wash  
☐ BMP C107 - Construction Road/Parking Area Stabilization  
☐ Not applicable - Existing access will prevent tracking of sediment onto public right of way

---

---

---

**Stormwater Pollution Prevention Plan (SWPPP) Checklist:  
Projects Between 800 & 5,000 SF**

3. **Control Flow Rates.** If there is substantial grading and/or the potential for stormwater runoff to flow off site during construction then one of the two BMPs must be identified and shown on the site plan.

- ☐ BMP C240 - Sediment Trap
  - ☐ BMP C241 - Temporary Sediment Pond
  - ☐ Not applicable - Very little grading and/or site does not experience site runoff during storm events
- 
- 
- 

4. **Install Sediment Controls.** When there is grading on a site and the site is sloped, there is a potential for sediment to leave the site during storm events. Please identify a BMP below if your site has any slope to it.

- ☐ BMP C231 - Brush Barrier
  - ☐ BMP C232 - Gravel Filter Berm
  - ☐ BMP C233 - Silt Fence
  - ☐ BMP 234 - Vegetated Strip
  - ☐ BMP C235 - Straw Wattles
  - ☐ BMP C240 - Sediment Trap
  - ☐ BMP C241 - Temporary Sediment Pond
  - ☐ BMP C250 - Construction Stormwater Chemical Treatment
  - ☐ BMP C251 - Construction Stormwater Filtration
  - ☐ Site is flat and no potential for sediment to leave the site exists
- 
- 
- 

5. **Stabilize Soils.** All exposed soil must be protected from rainfall and wind erosion. From October 1 through April 30, no soil shall remain exposed and unworked for more than 2 days. From May 1 to September 30, no soils shall remain exposed and unworked for more than 7 days.

- ☐ BMP C120 - Temporary and Permanent Seeding
- ☐ BMP C121 - Mulching
- ☐ BMP C122 - Nets and Blankets
- ☐ BMP C123 - Plastic Covering
- ☐ BMP C125 - Topsoiling
- ☐ BMP C130 - Surface Roughening (continued below)

**Stormwater Pollution Prevention Plan (SWPPP) Checklist:  
Projects Between 800 & 5,000 SF**

- ☐ BMP C131 - Gradient Terraces
  - ☐ BMP C240 - Sediment Trap
  - ☐ BMP C241 - Temporary Sediment Pond
  - ☐ BMP C240 - Sediment Trap
  - ☐ BMP C241 - Temporary Sediment Pond
- 
- 
- 
- 

**6. Project Slopes.** If the property has slopes, they must be protected from erosion if work is done on or near them.

- ☐ BMP C120- Temporary and Permanent Seeding
  - ☐ BMP C130 - Surface Roughening
  - ☐ BMP C131 Gradient Terraces
  - ☐ BMP C200 - Interceptor Dike and Swale
  - ☐ BMP C206 - Level Spreader
  - ☐ BMP C207 - Check Dams
  - ☐ BMP C208 - Triangular Silt Dike (Geotextile-Encased Check Dam)
  - ☐ Not Applicable - The property does not have any slopes nor are there any slopes within 100 Feet of the project boundaries
- 
- 
- 

**7. Protect Drain Inlets.** Storm drains shall be protected from sediment entering them.

- ☐ C220 - Storm Drain Inlet Protection
- ☐ Not Applicable - There are no storm drains on the property or within 100 feet of the stabilized construction access.

**8. Stabilize Channels and Outlets.** If temporary on-site conveyance channels are used, they must be stabilized to protect against erosion.

- ☐ BMP C202 - Channel Lining
- ☐ BMP C209 - Outlet Protection
- ☐ Not Applicable - Temporary on-site conveyance channels are not used for this project.

**Stormwater Pollution Prevention Plan (SWPPP) Checklist:  
Projects Between 800 & 5,000 SF**

9. **Control Pollutants.** All pollutants shall be handled and disposed of in a manner that does not cause contamination of stormwater. Please identify any BMP used for the project.

- ☐ BMP C151 - Concrete Handling
- ☐ CMP C152 - Sawcutting and Surfacing Pollution Prevention
- ☐ Above BMP not expected to be necessary, however all necessary precautions will be taken to ensure pollutants are handled and disposed of in a safe manner

10. **Control De-Watering.** If the site is expected to experience ponding and/or foundation is left in a manner that encourages water ponding, then the applicant shall make necessary plans to discharge the water in a manner that ensures it is safely cleaned before being discharged. Describe the plan for dewatering below.

- ☐ Not applicable. Site does not experience ponding and foundation will be kept dry such that water accumulation does not occur.

---

---

---

11. **Maintain BMPs.** All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function.

- ☐ BMPs will be checked weekly and immediately after storm events.
- ☐ Other: \_\_\_\_\_

---

12. **Managing the Project.** Phasing of the project is encouraged to prevent soils from being exposed for extended periods of time. Please describe how you will be planning your project to ensure that construction impact and soil exposure is limited.

---

---

---

**Stormwater Pollution Prevention Plan (SWPPP) Checklist:  
Projects Between 800 & 5,000 SF**

**FACT SHEET**

All projects that include earth disturbance or new impervious areas are required to comply with Bainbridge Island Municipal Code 15.20: Surface & Stormwater Management. The following fact sheet is intended to assist in the preparation of stormwater management documents that should accompany building permits.

**What is impervious surface?**

Impervious surface is the hard surface area which either prevents or retards the entry of water into the soil mantle present under natural conditions prior to development. Impervious surface is a hard surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots, storage areas, sports courts, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater.

**What is Onsite Stormwater Management?**

All projects which create or replace over 800 square feet of impervious surface are required to manage on-site stormwater through infiltration, dispersion or by use of rain gardens and other low impact practices.

**What are disturbed areas?**

Although a project may have limited impervious surfaces, the overall disturbed area of the site must be considered when developing a stormwater management plan. Disturbed areas are any places on the site where earth moving occurs, or where vegetation is removed to enable construction on the site or to create future landscaped areas such as lawns.

**Submittal Requirements:**

1. **Projects that create and replace greater than 800 square feet, but less than 5000 square feet of impervious surface and disturb less than one acre of land must submit:**
  - A Stormwater Pollution Prevention Plan (SWPPP) with a checklist (attached) or narrative and parcel plan that demonstrate the methods used to prevent erosion from construction activities and the discharge of sediment and

**Stormwater Pollution Prevention Plan (SWPPP) Checklist:  
Projects Between 800 & 5,000 SF**

other pollutants into receiving waters. This SWPPP does not need to be prepared by an engineer.

- A plan for onsite stormwater management. This plan does not need to be prepared by an engineer. A prescriptive plan is provided in the Surface & Stormwater Management (SSWM) Plan Worksheet. (In some circumstances, such as projects proposed in a critical area, the City may require engineering review).
2. **Projects that create or add more than 5000 square feet of impervious surfaces and/or disturb more than one acre of land must submit:**
- A SWPPP completed by an engineer.
  - An engineered stormwater drainage plan stamped by a Professional Engineer. This includes Single Family Residences and Duplexes.
3. **Projects with stormwater management already constructed, for example, an existing drainage system within a plat, must submit:**
- A Stormwater Pollution Prevention Plan (SWPPP) with a checklist (attached) or narrative and parcel plan that demonstrate the methods used to prevent erosion from construction activities and the discharge of sediment and other pollutants into receiving waters.
  - A plan showing the tightline or connection plan to the existing drainage system.

**Project Resources:**

Bainbridge Island Municipal Code (BIMC) Chapter 15.20 Surface and Stormwater Management - <http://www.codepublishing.com/wa/bainbridgeisland/>

Washington State Department of Ecology *Stormwater Management Manual for Western Washington* - <http://www.ecy.wa.gov/programs/wq/stormwater/manual.html>

City of Bainbridge Island - Development Division

**Stormwater Pollution Prevention Plan (SWPPP) Checklist:  
Projects Between 800 & 5,000 SF**

Kitsap County Low *Impact Development (LID) Guidance Manual* -

[http://www.kitsaphba.org/LID/resources/Cookbook%20V%201\\_21%20070109.pdf](http://www.kitsaphba.org/LID/resources/Cookbook%20V%201_21%20070109.pdf)

Kitsap County BMP Sizing Tool (MS Excel) -

[http://www.kitsapgov.com/dcd/dev\\_eng/Kitsap%20BMP%20Sizing%20Calculator%2003-10-10.xls](http://www.kitsapgov.com/dcd/dev_eng/Kitsap%20BMP%20Sizing%20Calculator%2003-10-10.xls)

If you have any questions regarding stormwater management and/or erosion control, a packet of information is included in all SFR packets. For further assistance, contact the City of Bainbridge Island Development Engineer at (206) 780-3783.